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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/033,503	12/27/2001	Ravi K. Kavuri	2001-028-NSC (STK 01028 P	8645
51344	7590	11/28/2005	EXAMINER	
STORAGE TECHNOLOGY CORPORATION ONE STORAGE TEK DRIVE, MS-4309 LOUISVILLE, CO 80028-4309			FERNANDES, CHERYL M	
			ART UNIT	PAPER NUMBER
			2163	
DATE MAILED: 11/28/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

SP

Office Action Summary	Application No. 10/033,503	Applicant(s) KAVURI ET AL.	
	Examiner Cheryl M. Fernandes	Art Unit 2163	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This communication is responsive to the Arguments filed September 12, 2005.
Claims 21-40 are pending.

Response to Arguments

2. Applicant's arguments filed with reference to claims 21-40 have been fully considered but they are not persuasive.

Referring to claims 21, 26, 31, and 36, Applicant argues that Reuter fails to teach automatically allocating a storage device to a pool. However, Examiner respectfully disagrees. Reuter clearly teaches automatically assigning storage resources via a system management interface (col. 5, lines 4-8). In addition, Reuter teaches graphical user interfaces such as those in Fig. 11 and 12, that facilitate management or allocation of virtual disk storage (col. 11, lines 59-64). Reuter also illustrates the automatic allocation of virtual disks in Fig. 11 and 12 and an automatic storage pool selection for a new virtual disk (col. 12, lines 18-38), thereby automatically allocating a storage device to a pool.

The rejections of claims 22-25, 27-30, 32-35, and 37-40 are also maintained for the reasons provided above.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 21-40 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent Number 6,745,207 issued to Reuter et al (hereafter Reuter).

Referring to claim 21, Reuter discloses a system for managing a plurality of virtual storage volumes available to a user for use in storage and retrieval of user data (Abstract), the system comprising:

- a pool ('root pool containing sub-pools', see Fig. 3 and 4; col. 7, lines 28-60, 'LUN', col. 13, lines 9-18, Fig. 4 and 18) linked to at least one of the plurality of virtual storage volumes ('virtual disks X, Y, and Z', see Fig. 4; col. 9, lines 35-63; col. 5, lines 42- 63; col. 7, lines 7-24); and
- a controller ('Management Agent (MA)', see Fig. 5, element 120, col. 10, lines 39-66; col. 7, line 61 – col. 8, line 2) for automatically allocating a storage device to the pool (MA contains one or more managing clients (MC) that provide the graphical user interface (virtual disk wizard) of Figs 11 and 12 to allocate resources, col. 11, lines 27-28 and 59-64; col. 12, lines 18-38; 'automated policy', col. 5, lines 1-8).

Referring to claims 26, 31, and 36, the limitations of the claims are similar to claim 21 addressed above and are therefore rejected for the same reasons as claim 21.

Referring to claims 22, 27, 32, and 37, Reuter discloses that the storage device comprises at least one physical disk ('LUNS data container', Fig. 3 and 4; col. 8, lines 4-9).

Referring to claims 23, 28, 33, and 38, Reuter discloses that the storage device comprises at least one redundant array of independent disks ('RAID' volumes, see Fig. 6).

Referring to claims 24, 25, 29, 30, 34, 35, 39, and 40, Reuter discloses that the storage device comprises at least one virtual storage volume, wherein the at least one virtual storage volume comprises at least one virtual disk (Fig. 1, elements 120 and 150; Fig. 3; Fig. 4).

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Art Unit: 2163

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheryl M Fernandes who can be reached on (571) 272-4018. The examiner can normally be reached on 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on (571) 272-4023. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

November 19, 2005
CMF



UYEN LE
PRIMARY EXAMINER